B3 cont'd. circuitry for analyzing the status bit and for requesting a change in a data rate used to exchange the plurality of data units.

REMARKS

1. Claims 1-18 remain in the application. Claims 1, 11, 12, and 15 have been amended to clarify the features of the present invention.

A marked-up version of the rewritten claims is attached hereto.

2. Applicants note with appreciation that the drawing correction filed on August 14, 2002 has been approved. Applicants will provide corrected drawings upon receiving a Notice of Allowance.

3. Applicants wish to express their thanks for the courtesies extended by the Examiner during the telephone conversation of February 3, 2003.

4. Claims 1-4, 6, and 8-11 are not anticipated by Suzuki (US 6,044,067).

Referring to claim 1, Suzuki fails to disclose or suggest communication data divided into data units where each data unit includes at least one user data element and at least one status data element.

While Suzuki discloses a status detecting means for detecting a communication status (column 2, lines 41-42), there is no other disclosure in Suzuki related to detecting communication status and no disclosure related to status elements. Furthermore, there is no disclosure related to a data unit having a status

element, and nothing related to individual data units, each including a data element and a status element.

Suzuki also fails to disclose or suggest detecting a need for bearer modification from received status indications in at least two consecutive data units.

Suzuki discloses using two consecutive time slots (column 4, lines 50-63), but this has nothing to do with receiving status indications. Additional time slots are used to compensate for lowering the transmission rate. By increasing the number of time slots and lowering the bit rate within each time slot, the effective transmission rate may be maintained. There is no mention of using consecutive time slots for status indications. Suzuki's use of time slots is clearly unrelated to detecting status indicators in two consecutive time slots.

Suzuki discloses a method where the speed of a radio communication between a base station and a mobile station can be adjusted on the basis of how much the radio communication causes interference in the neighboring cells. This is in sharp contrast to the method according to the present invention, which is directed to adjusting the speed of a radio communication on the basis of received data packets.

Applicants note that the status indications of the present invention are part of a defined structure of a data packet. In Suzuki, measured information is relayed to the base station via a ground communication path (column 17, lines 5-10), or as control data (column 17, lines 45-50) which is added to the actual packet as a part of extra information (column 10, lines 38 to 45).

Column 1, lines 23 and 58-64, column 3, lines 56-67, column 4, lines 40-58, and Figures 1-3 of Suzuki disclose a general method of changing a transmission rate, which is known technology. The Office Action refers to column 17, lines 45-60 of Suzuki and states that the mobile station makes the decision regarding changing the speed of data transmission. However, column 17, lines 45-60 states that the terminal measures power, calculates an interference power and transmits the value to the base station where transmission rate is reduced "under the control of the base station A." Applicants submit that this indicates that the mobile station sends the information it has measured as control data to the base station and the base station, not the mobile terminal, changes the transmission rate.

Suzuki discloses a method wherein the interference caused from the communication of a neighboring cell is observed by the cell that measures the interference (column 16, line 53 through column 17 line 40). If the interference is high enough, this is reported to the neighboring cell and the transfer rate is reduced. If this kind of information is not reported, the transfer rate can be increased if possible. This measurement may be done also by the mobile station (column 17, lines 41-53).

In contrast, the present invention teaches that the need for adjusting the transmission rate is monitored from the information being transferred between the base station and the mobile station. It is clear that the present invention and Suzuki are directed to two different methods.

At least for these reasons, Applicants respectfully submit that claim 1 is not anticipated by Suzuki.

Claim 11 is directed to subject matter similar to claim 1 and is therefore is also patentable over Suzuki.

Claims 2-4, 6, and 8-10 depend from claim 1 and are patentable over Suzuki because of their dependency.

5. Claims 5 and 7 are patentable over Suzuki.

Claims 5 and 7 depend from claim 1 and are patentable over Suzuki for the reasons argued above in support of claim 1.

6. Claims 12, 15, and 17 are not anticipated by Snowden et al. (US 5,974,032, hereinafter "Snowden").

Regarding claim 12, Snowden fails to disclose or suggest exchanging a plurality of data units between the network element and the mobile terminal, wherein at least one data unit includes a status bit that indicates whether flow control in transmitting data terminal equipment is active or inactive.

Snowden describes a paging information burst that includes a bit rate indicator. The bit rate indicator "indicates which of two bit rates is used in the reminder of the time slot" (column 9, lines 37-39). This is different from a status bit, defined in the present specification on page 9, lines 1-3 as "indicating whether the flow control in the DTE in the opposite end is active or inactive." Snowden's bit rate indicator signals the bit rate of an incoming transmission. As shown in Figure 9, step 950, and described in column 17, lines 11-15, the bit rate indicator is used to determine the bit rate and the interleaving mode that is being used. Thus, Snowden's bit rate indicator has no relation to an indication that flow control is active or inactive in transmitting data terminal equipment.

Snowden also fails to disclose or suggest requesting a change in a data rate used to exchange the plurality of data units.

Snowden uses the bit rate indicator to indicate the data rate of the remaining information and the interleaving mode. This is simply an indication of characteristics and is clearly not a request to change a data rate.

At least for these reasons, Applicants submit that claim 12 is patentable over Snowden.

Claim 15 is directed to similar subject matter and therefore is also patentable over Snowden.

Claim 17 depends from claim 15 and is patentable because of its dependency.

7. Claims 13, 14, 16, and 17 are patentable over the combination of Snowden and Suzuki.

Claims 13, 14, 16, and 17 depend from claims 11 or 15. As mentioned above, neither Snowden nor Suzuki disclose or suggest a data element having a status bit according to Applicants' invention. At least for these reasons, claims 13, 14, 16, and 17 are patentable over the combination of Snowden and Suzuki.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

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Date: 2/5/03

Signature: Carolina Rodriguez
Person Making Deposit

Application No.: 09/397,300

Marked Up Claim(s)

1. (Amended) A mobile terminal (MS) comprising

transceiving means (TAF, 93) for communicating data with a mobile network element (IWF) using a bearer that is modifiable by a negotiation between the mobile terminal (MS) and the mobile network element (IWF), said data being divided into data units (60) ~~that comprise~~, wherein each data unit comprises at least one user data element (61) and at least one status data element (62), said status data element (62) comprising a status indication (63) from the mobile network element (IWF) to the mobile terminal (MS);

wherein said mobile terminal (MS) further comprises

detecting means (96) for detecting a need for bearer modification from received status indications (63) in at least two consecutive data units; and

control means (91) for initiating a negotiation for bearer modification, as a response to the detected need for bearer modification.

11. (Amended) A method for communicating with a mobile network element (IWF), comprising:

communicating data with a mobile network element (IWF) using a bearer that is modifiable by a negotiation between the mobile terminal (MS) and the mobile network element (IWF), said data being divided into data units (60) ~~that comprise~~, wherein each data unit comprises at least one user data element (61) and at

least one status data element (62), said status data element (62) comprising a status indication (63) from the mobile network element (IWF) to the mobile terminal (MS);

wherein the method further comprises

detecting a need for bearer modification from received status indications (63) in at feast two consecutive data units; and

initiating a negotiation for bearer modification, as a response to the detected need for bearer modification.

12. (Amended) A method of communication between a network element and a mobile terminal in a communication network comprising;

exchanging a plurality of data units between the network element and the mobile terminal, wherein at least one data unit includes a status bit indicating ~~the status of~~that flow control in data terminal equipment ~~in the communication network~~used to transmit the data unit is active or inactive;

analyzing the status bit; and

requesting a change in a data rate used to exchange the plurality of data units.

15. (Amended) A communication network comprising;

a mobile terminal;

a network element for exchanging a plurality of data units with the mobile terminal;

circuitry for providing at least one data unit that includes a status bit indicating ~~the status of~~that flow control in data terminal equipment ~~in the communication network~~used to transmit the data unit is active or inactive; and

circuitry for analyzing the status bit and for requesting a change in a data rate used to exchange the plurality of data units.